

SAFETY DATA SHEET

SECTION 1. IDENTIFICATION

Product identifier used on the label

: **Fleet Formula Diesel Fuel Treatment**

Product Code(s) : 00393, 90393, 00395P, 00396

Recommended use of the chemical and restrictions on use

: Diesel fuel additive
No restrictions on use known.

Chemical family : Mixture.

Name, address, and telephone number of the manufacturer:

FPPF Chemical Company, Inc.

117 West Tupper Street
Buffalo, NY, USA 14201

Manufacturer's Telephone # : 1-800-735-3773

24 Hr. Emergency Tel # : Chemtrec 1-800-424-9300 (Within Continental U.S.); Chemtrec 703-527-3887 (Outside U.S.).

Name, address, and telephone number of the supplier:

Refer to manufacturer

SECTION 2. HAZARDS IDENTIFICATION

Classification of the chemical

Clear to slightly hazy amber liquid. Solvent odour.

This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).

Classification

Flammable liquid - Category 3
Acute toxicity, Oral - Category 4
Acute toxicity, Dermal - Category 3
Acute toxicity, Inhalation (Vapour) - Category 3
Skin corrosion/irritation - Category 2
Eye damage/irritation - Category 2A
Aspiration toxicity - Category 1
Reproductive hazard - Category 2 (Developmental)
Carcinogenicity - Category 2
Specific target organ toxicity, single exposure - Category 1 (blood)
Specific target organ toxicity, single exposure - Category 3 (Respiratory irritation)
Specific target organ toxicity, single exposure - Category 3 (Narcotic effects)

Label elements

Hazard pictogram(s)



Signal Word

DANGER!

Hazard statement(s)

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Flammable liquid and vapour
 Harmful if swallowed.
 Toxic in contact with skin.
 Toxic if inhaled.
 Causes skin irritation.
 Causes serious eye irritation.
 Causes damage to the blood system if swallowed.
 May cause respiratory irritation.
 May cause drowsiness and dizziness.
 May be fatal if swallowed and enters airways.
 Suspected of causing cancer.
 Suspected of damaging the unborn child.

Precautionary statement(s)

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, sparks and open flame. - No smoking. Keep container tightly closed. Ground/Bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe mist or vapor. Use only outdoors or in a well-ventilated area. Do not eat, drink or smoke when using this product. Wear protective gloves/clothing and eye/face protection. Wash hands and face thoroughly after handling.

In case of fire: Use alcohol-resistant foam, carbon dioxide or dry chemical to extinguish.

IF exposed: Call a POISON CENTRE or doctor/physician.

IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. Call a POISON CENTRE or doctor/physician if you feel unwell. Wash contaminated clothing before re-use. If skin irritation occurs, get medical advice/attention.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing. If eye irritation persists: get medical advice/attention.

IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician. Do NOT induce vomiting. Rinse mouth.

Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards

No OSHA defined hazard classes.

Other hazards which do not result in classification:

Burning produces obnoxious and toxic fumes. May be sensitive to static discharge. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Inhaling high concentrations may cause central nervous system depression, with effects ranging from dizziness and headache to unconsciousness.

Prolonged or repeated contact may cause drying, cracking and defatting of the skin.

Environmental precautions: Avoid release to the environment. See ECOLOGICAL INFORMATION, Section 12.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Chemical name</u>	<u>Common name and synonyms</u>	<u>CAS #</u>	<u>Concentration</u>
Light aromatic solvent naphtha	Aromatic solvent naphtha; Solvent Naphtha (Petroleum) Light Aromatic; HFAN	64742-95-6	7.0 - 17.0
2-Butoxy ethanol	Ethylene Glycol Monobutyl Ether; EGBE	111-76-2	45.0 - 50.0
Heavy aromatic solvent naphtha	Aromatic solvent naphtha; Heavy Aromatic Naphtha; Solvent Naphtha (Petroleum) Heavy Aromatic	64742-94-5	10.0 - 25.0
Naphthalene	Moth balls; Moth flakes; Tar camphor	91-20-3	1.5 - 4.5
1,2,4-Trimethylbenzene	Pseudocumene	95-63-6	1.0 - 8.0
1,3,5-Trimethyl benzene	Trimethylbenzol; Mesitylene	108-67-8	0.1 - 0.9

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Xylene (mixed isomers)	Dimethylbenzene; Methyltoluene; Xylol	1330-20-7	0.1 - 0.9
Cumeme	Isopropyl benzene; Cumol; 2-Phenyl propane	98-82-8	0.1 - 0.9
oleic acid	Oleinic Acid; 9-Octadecenoic Acid; Elaic Acid	112-80-1	1.0 - 2.0
2-Ethylhexanol	2-Ethylhexyl Alcohol	104-76-7	0.1 - 3.0

The exact concentrations of the above listed chemicals are being withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

Description of first aid measures

- Ingestion* : IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician. Do NOT induce vomiting. Rinse mouth. Aspiration hazard if swallowed - can enter lungs and cause damage. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep victim's head lowered (forward) to reduce the risk of aspiration.
- Inhalation* : If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen by qualified medical personnel only.
- Skin contact* : IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a POISON CENTRE or doctor/physician if exposed or you feel unwell. Wash contaminated clothing before reuse. If skin irritation occurs, get medical advice/attention.
- Eye contact* : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

Most important symptoms and effects, both acute and delayed

- : If exposed or concerned: Get medical attention/advice.
Toxic if inhaled. May cause respiratory impairment and lung damage. Symptoms may include coughing, choking and wheezing. Inhaling high concentrations may cause central nervous system depression, with effects ranging from dizziness and headache to unconsciousness.
Harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Symptoms may include severe abdominal pain, nausea and vomiting.
Toxic in contact with skin. May be absorbed through the skin, producing symptoms similar to ingestion or inhalation.
Causes skin irritation. Contact may cause redness, swelling and a painful sensation. Symptoms may include redness, itching and swelling.
Causes serious eye irritation. Symptoms may include redness, pain, tearing and conjunctivitis.
Causes damage to the blood system if swallowed. Contains material which may cause adverse blood system effects.
May be an aspiration hazard. May be fatal if swallowed and enters airways.
Aspiration into the lungs during swallowing or subsequent vomiting may cause chemical pneumonitis, which can be fatal. Symptoms include coughing, shortness of breath and wheezing.
Suspected of causing cancer. Symptoms may include persistent coughing, shortness of breath, coughing up blood and wheezing.
Suspected of damaging the unborn child. Symptoms in offspring may include reduced fetal weight, behavioral effects, delayed skeletal formation and hearing loss.
May cause respiratory irritation. Symptoms may include upper respiratory irritation, coughing and breathing difficulties.
May cause drowsiness and dizziness. Symptoms may include pain, headache, nausea, vomiting, dizziness, drowsiness and other central nervous system effects.

Indication of any immediate medical attention and special treatment needed

- : Immediate medical attention is required. Aspiration hazard. Aspiration into the lungs during swallowing or subsequent vomiting may cause chemical pneumonitis, which can be fatal.
Provide general supportive measures and treat symptomatically. Show this safety data sheet to the doctor in attendance.

SAFETY DATA SHEET**SECTION 5. FIRE-FIGHTING MEASURES****Extinguishing media***Suitable extinguishing media*

: Dry chemical, foam, carbon dioxide and water fog.

Unsuitable extinguishing media

: Do not use a solid water stream as it may scatter and spread fire.

Special hazards arising from the substance or mixture / Conditions of flammability

: Flammable liquid and vapour Product may ignite when exposed to heat, sparks and direct flame. Toxic fumes, gases or vapours may evolve on burning.
After prolonged storage, may release explosive peroxides in the presence of air. Rate of peroxide formation is not known. This product will accumulate static charge by flow, splashing or agitation.
Vapours are heavier than air and collect in confined and low-lying areas. Vapors may travel considerable distance to a source of ignition and flash back. Product may float, and be re-ignited at the water's surface.
Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure.

Flammability classification (OSHA 29 CFR 1910.106)

: Flammable liquid -Category 3

Hazardous combustion products

: Carbon monoxide, carbon dioxide, reactive hydrocarbons, aldehydes and other irritant gases, which may include toxic constituents.

Special protective equipment and precautions for firefighters*Protective equipment for fire-fighters*

: Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode.

Special fire-fighting procedures

: Move containers from fire area if safe to do so. Cool closed containers exposed to fire with water spray. Prevent runoff from fire control or dilution from entering sewers, drains, drinking water supply or any natural waterway. Dike for water control.

SECTION 6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

: Evacuate personnel to safe areas. Keep all other personnel upwind and away from the spill/release. All persons dealing with clean-up should wear the appropriate protective equipment including self-contained breathing apparatus. Restrict access to area until completion of clean-up. Refer to protective measures listed in sections 7 and 8.

Environmental precautions

: Ensure spilled product does not enter drains, sewers, waterways, or confined spaces. If necessary, dike well ahead of the spill to prevent runoff into drains, sewers, or any natural waterway or drinking supply.

Methods and material for containment and cleaning up

: Ventilate the area. Remove all sources of ignition. Prevent further leakage or spillage if safe to do so. Use only non-sparking tools. Bond and ground transfer containers and equipment to avoid static accumulation. For spilled liquids: absorb spill with inert, non-combustible material such as sand, then place into suitable containers. Do not use combustible absorbents, such as sawdust. Pick up and transfer to properly labelled containers. Contaminated absorbent material may pose the same hazards as the spilled product. Contact the proper local authorities.

Special spill response procedures

: In case of a transportation accident, in the United States contact CHEMTREC at 1-800-424-9300 or International at 1-703-527-3887. If a spill/release in excess of the EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8802).
US CERCLA Reportable quantity (RQ):
Naphthalene (100 lbs / 45.4 kg);
Xylene (100 lbs / 45.4 kg);
Cumene (5000 lbs / 2270 kg).

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SECTION 7. HANDLING AND STORAGE

Precautions for safe handling

- : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.
- Use only outdoors or in a well-ventilated area. Keep away from heat, sparks and open flame. - No smoking. Keep container tightly closed. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Ground/Bond container and receiving equipment. Take precautionary measures against static discharges. Wear protective gloves/clothing and eye/face protection. Use proper bonding and grounding techniques when transferring liquid. Do not breathe mist or vapor. Do not eat, drink or smoke when using this product. Do not ingest. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Avoid contact with incompatible materials.

Conditions for safe storage

- : Store in a well ventilated place. Keep cool. Keep container tightly closed. Store locked up. Store away from incompatibles and out of direct sunlight. After prolonged storage, may release explosive peroxides in the presence of air. Direct sunlight or heat may accelerate the release of peroxides. Rate of peroxide formation is not known. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks. No smoking in the area.

Incompatible materials

- : Strong oxidizing agents; Perchloric acid; Bases.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits:

<u>Chemical Name</u>	<u>ACGIH TLV</u>		<u>OSHA PEL</u>	
	<u>TWA</u>	<u>STEL</u>	<u>PEL</u>	<u>STEL</u>
Light aromatic solvent naphtha	N/Av	N/Av	N/Av	N/Av
2-Butoxy ethanol	20 ppm	N/Av	50 ppm (skin)	N/Av
Heavy aromatic solvent naphtha	N/Av	N/Av	500 ppm (as petroleum distillates, naphtha)	N/Av
Naphthalene	10 ppm (skin)	N/Av	10 ppm ; 50 mg/m ³	15ppm; 75mg/m ³
1,2,4-Trimethylbenzene	25 ppm (trimethylbenzene isomers)	N/Av	25 ppm (trimethylbenzene isomers) (final rule limit)	N/Av
1,3,5-Trimethyl benzene	25 ppm (trimethylbenzene isomers)	N/Av	25 ppm (trimethylbenzene isomers) (final rule limit)	N/Av
Xylene (mixed isomers)	100 ppm	150 ppm	100 ppm (435 mg/m ³)	N/Av
Cumeme	50 ppm	N/Av	50 ppm ; 245 mg/m ³ (Skin)	N/Av
oleic acid	N/Av	N/Av	N/Av	N/Av
2-Ethylhexanol	N/Av	N/Av	N/Av	N/Av

Exposure controls

Ventilation and engineering measures

- : Use only outdoors or in a well-ventilated area. Use explosion-proof electrical/ventilating/lighting/equipment. Apply technical measures to comply with the occupational exposure limits. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. In case of insufficient ventilation wear suitable respiratory equipment.

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- Respiratory protection** : If engineering controls and work practices are not effective in controlling exposure to this material, then wear suitable approved respiratory protection. If the TLV is exceeded, a NIOSH/MSHA-approved respirator is advised. Respirators should be selected based on the form and concentration of contaminants in air, and in accordance with OSHA (29 CFR 1910.134) or CSA Z94.4-02.
- Skin protection** : Wear protective gloves/clothing. Where extensive exposure to product is possible, use resistant coveralls, apron and boots to prevent contact. The suitability for a specific workplace should be discussed with the producers of the protective gloves.
- Eye / face protection** : Wear eye/face protection. Chemical splash goggles are recommended. A full face shield may also be necessary.
- Other protective equipment** : Ensure that eyewash stations and safety showers are close to the workstation location. Other equipment may be required depending on workplace standards.
- General hygiene considerations** : Do not breathe mist or vapor. Do not eat, drink or smoke when using this product. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Remove and wash contaminated clothing before re-use. Handle in accordance with good industrial hygiene and safety practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance** : Clear to slightly hazy amber liquid.
- Odour** : solvent
- Odour threshold** : none
- pH** : N/Av
- Melting/Freezing point** : -58°F / -50°C
- Initial boiling point and boiling range** : 310°F / 154°C
- Flash point** : 110°F / 43.3°C
- Flashpoint (Method)** : Tag closed cup
- Evaporation rate (BuAe = 1)** : <butyl acetates
- Flammability (solid, gas)** : N/Av
- Lower flammable limit (% by vol.)** : N/Av
- Upper flammable limit (% by vol.)** : N/Av
- Oxidizing properties** : None known.
- Explosive properties** : N/Av
- Vapour pressure** : < 4 mm Hg @ 20°C
- Vapour density** : > 4
- Relative density / Specific gravity** : ~ 0.84
- Solubility in water** : Partially soluble.
- Other solubility(ies)** : N/Av
- Partition coefficient: n-octanol/water or Coefficient of water/oil distribution** : N/Av
- Auto-ignition temperature** : N/Av
- Decomposition temperature** : N/Av
- Viscosity** : N/Av
- Volatiles (% by weight)** : N/Av
- Volatile organic Compounds (VOC's)** : N/Av
- Absolute pressure of container** : N/Av
- Flame projection length** : N/Av
- Other physical/chemical comments** : None reported by the manufacturer.

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SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	Not normally reactive. Refer to Section 7, HANDLING AND STORAGE, for additional information.
Chemical stability	:	Stable under normal conditions. Refer to Section 7, HANDLING AND STORAGE, for additional information.
Possibility of hazardous reactions	:	Hazardous polymerization will not occur. Keep away from heat and sources of ignition. May be sensitive to static discharge. May form explosive peroxides during prolonged exposure to air and heat. Rate of peroxide formation is not known.
Conditions to avoid	:	Avoid heat and open flame. Keep away from direct sunlight. Ensure adequate ventilation, especially in confined areas. Avoid contact with incompatible materials.
Incompatible materials	:	Strong oxidizing agents; Perchloric acid; Bases.
Hazardous decomposition products	:	None reported by the manufacturer. Refer also to hazardous combustion products, Section 5.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

Routes of entry inhalation	:	YES
Routes of entry skin & eye	:	YES
Routes of entry Ingestion	:	YES
Routes of exposure skin absorption	:	YES

Potential Health Effects:

Signs and symptoms of short-term (acute) exposure

Sign and symptoms Inhalation

- : Toxic if inhaled. Symptoms may include pain, headache, nausea, vomiting, dizziness, drowsiness and other central nervous system effects. May cause irritation to the nose, throat and upper respiratory tract. Symptoms may include upper respiratory irritation, coughing and breathing difficulties. May cause central nervous system depression. Symptoms include: Headache, dizziness, drowsiness, incoordination, slowed reaction time, slurred speech, giddiness, and possible unconsciousness.

Sign and symptoms ingestion

- : Harmful if swallowed. Ingestion may cause symptoms similar to inhalation. Symptoms may include pain, headache, nausea, vomiting, dizziness, drowsiness and other central nervous system effects. Aspiration hazard - material may cause lung inflammation or damage if it enters lungs through vomiting or swallowing. Symptoms include coughing, shortness of breath and wheezing. Causes damage to the blood system if swallowed. Contains material which may cause adverse blood system effects.

Sign and symptoms skin

- : Toxic in contact with skin. May be absorbed through the skin, producing symptoms similar to ingestion or inhalation. Causes skin irritation. Symptoms include: Dryness, itching, cracking, burning, redness and swelling.

Sign and symptoms eyes

- : Causes serious eye irritation. Symptoms may include redness, pain, tearing and conjunctivitis.

Potential Chronic Health Effects

- : May cause damage to the blood system, the liver and the kidneys through prolonged or repeated exposure. Prolonged or repeated contact may cause drying, cracking and defatting of the skin. Chronic overexposure to 2-butoxyethanol may cause liver, kidney and blood damage.

Mutagenicity

- : Not expected to be mutagenic in humans.

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- Carcinogenicity** : This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).
- Classification Carcinogenicity- Category 2 Suspected of causing cancer.
- Contains Naphthalene. Naphthalene is classified as carcinogenic by IARC (Group 2B) and NTP (Group 2 - Reasonably anticipated).
- Contains Cumene. Cumene is classified as possibly carcinogenic by IARC (Group 2B).
- Reproductive effects & Teratogenicity** : This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).
- Classification Reproductive Toxicity - Category 2 Suspected of damaging the unborn child. Developmental
- Contains Xylene (mixed isomers) Xylene may cause fetotoxic effects (e.g. reduced fetal weight, delayed ossification, behavioral effects) at doses which are not maternally toxic, based on animal data.
- Sensitization to material** : Not expected to be a skin sensitizer.
Not expected to be a respiratory sensitizer.
- Specific target organ effects** : Eyes, skin, respiratory system, digestive system, central nervous system, blood system.
- This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015). Classification Specific target organ toxicity, single exposure Category 1 Causes damage to organs. Excessive overexposure could cause blood system effects (anemia). Contains Naphthalene
- Specific target organ toxicity, single exposure Category 3 May cause drowsiness and dizziness. May cause respiratory irritation.
- Not classified as a specific target organ toxicity-repeated exposure.
- Medical conditions aggravated by overexposure** : Pre-existing skin, eye, respiratory and central nervous system disorders.
- Synergistic materials** : None reported by the manufacturer.
- Toxicological data** : The calculated ATE values for this mixture are:
ATE oral = 1000mg/kg
ATE dermal = 570mg/kg
ATE inhalation (vapours) =4.3mg/L/4H
ATE inhalation (mists) = 32.4mg/L/4H
- See below for individual ingredient acute toxicity data.

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<u>Chemical name</u>	<u>LC₅₀(4hr)</u> <u>inh, rat</u>	<u>LD₅₀</u>	
		<u>(Oral, rat)</u>	<u>(Rabbit, dermal)</u>
Light aromatic solvent naphtha	>17.7mg/L/4H (vapour)	8400 mg/kg	>3160 mg/kg
2-Butoxy ethanol	450 ppm (2.175 mg/L)	530 mg/kg	400 - 500 mg/kg
Heavy aromatic solvent naphtha	>17.1 mg/L/4H (mist)	> 6000 mg/kg	> 3160 mg/kg
Naphthalene	No information available.	490 mg/kg	>20,000 mg/kg
1,2,4-Trimethylbenzene	18 mg/L	5000 mg/kg	> 3160 mg/kg
1,3,5-Trimethyl benzene	24 mg/L	23 000 mg/kg	>3160mg/kg
Xylene (mixed isomers)	6350 ppm (27.6 mg/L) (vapours)	3253 mg/kg	12 180 mg/kg
Cumeme	8000 ppm; 39 mg/L (vapour)	2260 mg/kg	10 627 mg/kg
oleic acid	N/Av	>19200 mg/kg	>3000 mg/kg guinea pig
2-Ethylhexanol	≥1.2 - <5.3 mg/L (aerosol)	2052 mg/kg	N/Av

Other important toxicological hazards

: None known or reported by the manufacturer.

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity**

: No data is available on the product itself. Contains material that may be harmful in the environment. Avoid release to the environment. The product should not be allowed to enter drains, water courses or the soil.

See the following tables for individual ingredient ecotoxicity data.

Ecotoxicity data:

<u>Ingredients</u>	<u>CAS No</u>	<u>Toxicity to Fish</u>		
		<u>LC50 / 96h</u>	<u>NOEC / 21 day</u>	<u>M Factor</u>
Light aromatic solvent naphtha	64742-95-6	9.22 mg/L (Rainbow trout)	N/Av	None.
2-Butoxy ethanol	111-76-2	1490 mg/L (Bluegill sunfish)	>100mg/L (Zebra fish)	None.
Heavy aromatic solvent naphtha	64742-94-5	3.6 mg/L (Rainbow trout)	N/Av	None.
Naphthalene	91-20-3	0.96 mg/L (pink salmon)	0.12mg/L (40 days) (pink salmon)	None.
1,2,4-Trimethylbenzene	95-63-6	7.19 - 8.28 mg/L (Fathead minnow)	N/Av	None.
1,3,5-Trimethyl benzene	108-67-8	12.52 mg/L (Goldfish)	N/Av	None.
Xylene (mixed isomers)	1330-20-7	8.2 mg/L (Rainbow trout)	N/Av	None.
Cumeme	98-82-8	4.5mg/L (Rainbow trout)	0.38mg/L QSAR	None.
oleic acid	112-80-1	205 mg/L Fathead minnow	N/Av	N/Av
2-Ethylhexanol	104-76-7	17.1 mg/L (Golden orfe)	N/Av	None.

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<u>Ingredients</u>	CAS No	Toxicity to Daphnia		
		EC50 / 48h	NOEC / 21 day	M Factor
Light aromatic solvent naphtha	64742-95-6	6.16 mg/L (Daphnia magna)	N/Av	None.
2-Butoxy ethanol	111-76-2	835mg/L Daphnia magna (Water flea)	100mg/L Daphnia magna (Water flea)	None.
Heavy aromatic solvent naphtha	64742-94-5	1.1 mg/L Daphnia magna (Water flea)	N/Av	None.
Naphthalene	91-20-3	3.4 mg/L/ Daphnia magna (Water flea)	0.6mg/L Daphnia magna (Water flea)	None.
1,2,4-Trimethylbenzene	95-63-6	3.6 mg/L Daphnia magna (Water flea)	N/Av	None.
1,3,5-Trimethyl benzene	108-67-8	6 mg/L Daphnia magna (Water flea)	0.4mg/L	None.
Xylene (mixed isomers)	1330-20-7	3.2 - 9.56 mg/L (Daphnia magna)	N/Av	None.
Cumeme	98-82-8	2.14 mg/L Daphnia magna (Water flea)	0.35mg/L	None.
oleic acid	112-80-1	N/Av	N/Av	N/Av
2-Ethylhexanol	104-76-7	39 mg/L Daphnia magna (Water flea)	N/Av	None.

<u>Ingredients</u>	CAS No	Toxicity to Algae		
		EC50 / 96h or 72h	NOEC / 96h or 72h	M Factor
Light aromatic solvent naphtha	64742-95-6	N/Av	N/Av	N/Av
2-Butoxy ethanol	111-76-2	911mg/L/72hr	286mg/L/72hr	None.
Heavy aromatic solvent naphtha	64742-94-5	7.2 mg/L/72 hours (Green algae)	0.22 mg/L/72 hours (Green algae)	None.
Naphthalene	91-20-3	0.4mg/L/72hr (Marine diatom)	N/Av	None.
1,2,4-Trimethylbenzene	95-63-6	2.356mg/L QSAR	N/Av	None.
1,3,5-Trimethyl benzene	108-67-8	3.191mg/L QSAR	N/Av	None.
Xylene (mixed isomers)	1330-20-7	3.2 - 4.9 mg/L/72hr (Green algae)	N/Av	None.
Cumeme	98-82-8	1.29mg/L/72hr (Green algae)	0.73mg/L	None.
oleic acid	112-80-1	N/Av	N/Av	N/Av
2-Ethylhexanol	104-76-7	16.6mg/L (Green algae)	N/Av	None.

Persistence and degradability

: No data is available on the product itself. The following ingredients are considered to be readily biodegradable: Ethylene glycol monobutyl ether; 2-Ethoxyethanol

Bioaccumulation potential

: No data is available on the product itself.

See the following data for ingredient information.

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<u>Components</u>	<u>Partition coefficient n-octanol/water (log Kow)</u>	<u>Bioconcentration factor (BCF)</u>
Light aromatic solvent naphtha (CAS 64742-95-6)	2.1 - 6(calculated)	10-2500(calculated)
2-Butoxy ethanol (CAS 111-76-2)	0.81	0.97
Heavy aromatic solvent naphtha (CAS 64742-94-5)	2.9 - 6.1	N/Av
Naphthalene (CAS 91-20-3)	3.7	30 - 430 species: fish
1,2,4-Trimethylbenzene (CAS 95-63-6)	3.78	31 - 275
1,3,5-Trimethyl benzene (CAS 108-67-8)	3.6 - 3.93	23 - 328
Xylene (mixed isomers) (CAS 1330-20-7)	3.12 - 3.2	50 - 58
Cumene (CAS 98-82-8)	3.55	224(calculated)
oleic acid (CAS 112-80-1)	7.64	10 (calculated)
2-Ethylhexanol (CAS 104-76-7)	2.9	30

Mobility in soil : No data is available on the product itself.

Other Adverse Environmental effects

: The ecological characteristics of this product have not been fully investigated.

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

SECTION 13. DISPOSAL CONSIDERATIONS

Handling for Disposal

: Handle in accordance with good industrial hygiene and safety practice. Refer to protective measures listed in sections 7 and 8.



Methods of Disposal

: Dispose in accordance with all applicable federal, state, provincial and local regulations.

RCRA

: If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

SECTION 14. TRANSPORTATION INFORMATION

Regulatory Information	UN Number	UN proper shipping name	Transport hazard class(es)	Packing Group	Label
49CFR/DOT	UN1993	FLAMMABLE LIQUID, N.O.S. (Aromatic solvent naphtha; 1,2,4-Trimethylbenzene)	3	III	
49CFR/DOT Additional information	Not regulated for rail or road shipment if packaged in non-bulk containers (450 Litres or less each). Limited quantity exemption may be used if product is in containers of 5 Litres or less, per section 173.150 of 49 CFR.				
TDG	UN1993	FLAMMABLE LIQUID, N.O.S. (Aromatic solvent naphtha; 1,2,4-Trimethylbenzene)	3	III	
TDG Additional information	Not regulated for rail or road shipment if packaged in non-bulk containers (450 Litres or less each). Limited quantity exemption may be used if product is in containers of 5 Litres or less, per section 1.17 of TDG. ERG#128.				

Special precautions for user : Keep away from flames and hot surfaces. - No smoking.

Environmental hazards

: This product meets the criteria for an environmentally hazardous material according to the IMDG Code. See ECOLOGICAL INFORMATION, Section 12.

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Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

: Not available.

SECTION 15 - REGULATORY INFORMATION

US Federal Information:

Components listed below are present on the following U.S. Federal chemical lists:

Ingredients	CAS #	TSCA Inventory	CERCLA Reportable Quantity(RQ) (40 CFR 117.302):	SARA TITLE III: Sec. 302, Extremely Hazardous Substance, 40 CFR 355:	SARA TITLE III: Sec. 313, 40 CFR 372, Specific Toxic Chemical	
					Toxic Chemical	de minimus Concentration
Light aromatic solvent naphtha	64742-95-6	Yes	N/Ap	N/Ap	No	No
2-Butoxy ethanol	111-76-2	Yes	N/Ap	N/Ap	No	No
Heavy aromatic solvent naphtha	64742-94-5	Yes	N/Ap	N/Ap	No	No
Naphthalene	91-20-3	Yes	100 lb/ 45.4 kg	None.	Yes	Yes
1,2,4-Trimethylbenzene	95-63-6	Yes	N/Ap	N/Ap	Yes	No
1,3,5-Trimethyl benzene	108-67-8	Yes	N/Ap	N/Ap	No	No
Xylene (mixed isomers)	1330-20-7	Yes	100 lb/ 45.4 kg	None.	Yes	No
Cumeme	98-82-8	Yes	5000 lb/ 2270 kg	None.	Yes	No
oleic acid	112-80-1	Yes	N/Ap	N/Ap	No	No
2-Ethylhexanol	104-76-7	Yes	N/Ap	N/Ap	No	No

SARA TITLE III: Sec. 311 and 312, MSDS Requirements, 40 CFR 370 Hazard Classes: Fire Hazard; Acute Health Hazard; Chronic Health Hazard. Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds for the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

US State Right to Know Laws:

The following chemicals are specifically listed by individual States:

Ingredients	CAS #	California Proposition 65		State "Right to Know" Lists					
		Listed	Type of Toxicity	CA	MA	MN	NJ	PA	RI
Light aromatic solvent naphtha	64742-95-6	No	Not listed	No	No	No	No	No	No
2-Butoxy ethanol	111-76-2	No	Not listed	Yes	Yes	Yes	Yes	Yes	Yes
Heavy aromatic solvent naphtha	64742-94-5	No	Not listed	No	No	No	No	No	No
Naphthalene	91-20-3	Yes	Carcinogen	Yes	Yes	Yes	Yes	Yes	Yes
1,2,4-Trimethylbenzene	95-63-6	No	Not listed	No	Yes	Yes	Yes	Yes	No
1,3,5-Trimethyl benzene	108-67-8	No	Not listed	Yes	Yes	No	No	No	No
Xylene (mixed isomers)	1330-20-7	No	Not listed	Yes	Yes	Yes	Yes	Yes	Yes
Cumeme	98-82-8	Yes	Carcinogen	Yes	Yes	Yes	Yes	Yes	Yes
oleic acid	112-80-1	No	Not listed	No	No	No	No	Yes	Yes
2-Ethylhexanol	104-76-7	No	Not listed	No	Yes	No	No	Yes	No

Canadian Information:

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Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL).

WHMIS Classification: See Section 2.

International Information:

Components listed below are present on the following International Inventory list:

<u>Ingredients</u>	<u>CAS #</u>	<u>European EINECs</u>	<u>Australia AICS</u>	<u>Philippines PICCS</u>	<u>Japan ENCS</u>	<u>Korea KECI/KECL</u>	<u>China IECSC</u>	<u>NewZealand IOC</u>
Light aromatic solvent naphtha	64742-95-6	265-199-0	Present	Present	(9)-1698	KE-31662	Present	May be used as a single component chemical under an appropriate group standard
2-Butoxy ethanol	111-76-2	203-905-0	Present	Present	(7)-97; (2)-407	KE-04134	Present	HSR001154
Heavy aromatic solvent naphtha	64742-94-5	265-198-5	Present	Present	(3)-7	KE-31656	Present	May be used as a single component chemical under an appropriate group standard
Naphthalene	91-20-3	202-049-5	Present	Present	(4)-311	KE-25545	Present	HSR001287
1,2,4-Trimethylbenzene	95-63-6	202-436-9	Present	Present	(3)-7; (3)-3427	KE-34410	Present	HSR001382
1,3,5-Trimethyl benzene	108-67-8	203-604-4	Present	Present	(3)-7; (3)-3427	KE-34411	Present	HSR001229
Xylene (mixed isomers)	1330-20-7	215-535-7	Present	Present	(3)-60; (3)-3	KE-35427	Present	HSR000983
Cumeme	98-82-8	202-704-5	Present	Present	(3)-32; (3)-22	KE-23957	Present	HSR001184
oleic acid	112-80-1	204-007-1	Present	Present	(2)-975; (2)-609	KE-26450	Present	HSR003153
2-Ethylhexanol	104-76-7	203-234-3	Present	Present	(2)-217	KE-13766	Present	HSR001386

SECTION 16. OTHER INFORMATION

Legend

- : ACGIH: American Conference of Governmental Industrial Hygienists
- AICS: Australian Inventory of Chemical Substances
- CAS: Chemical Abstract Services
- CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
- CFR: Code of Federal Regulations
- CSA: Canadian Standards Association
- DOT: Department of Transportation
- EC50: Effective Concentration 50%.
- EINECS: European Inventory of Existing Commercial chemical Substances
- ENCS: Existing and New Chemical Substances
- EPA: Environmental Protection Agency
- HMIS: Hazardous Materials Identification System
- HSDB: Hazardous Substances Data Bank
- IARC: International Agency for Research on Cancer
- Inh: Inhalation
- IMDG: International Maritime Dangerous Goods
- KECI: Korean Existing Chemicals Inventory
- KECL: Korean Existing Chemicals List
- LC: Lethal Concentration
- LD: Lethal Dose
- MA: Massachusetts
- MN: Minnesota
- MSHA: Mine Safety and Health Administration
- N/Ap: Not Applicable
- N/Av: Not Available

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NFPA: National Fire Protection Association
 NIOSH: National Institute of Occupational Safety and Health
 NTP: National Toxicology Program
 NJ: New Jersey
 NOEC: No observable effect concentration
 NTP: National Toxicology Program
 OECD: Organisation for Economic Co-operation and Development
 OSHA: Occupational Safety and Health Administration
 PA: Pennsylvania
 PEL: Permissible exposure limit
 PICCS: Philippine Inventory of Chemicals and Chemical Substances
 RCRA: Resource Conservation and Recovery Act
 RI: Rhode Island
 RTECS: Registry of Toxic Effects of Chemical Substances
 SARA: Superfund Amendments and Reauthorization Act
 STEL: Short Term Exposure Limit
 TDG: Canadian Transportation of Dangerous Goods Act & Regulations
 TLV: Threshold Limit Values
 TPQ: Threshold Planning Quantity
 TSCA: Toxic Substance Control Act
 TWA: Time Weighted Average
 WHMIS: Workplace Hazardous Materials Identification System

References : Canadian Centre for Occupational Health and Safety (CCOHS), CChemWeb databases, 2015 (CHEMINFO, HSDB and RTECS).
 OECD- The Global Portal to Information on Chemical Substances - eChemPortal, 2015
 European Chemicals Agency, Classification Legislation, 2015
 Information taken from reference works and the literature.

Preparation Date (mm/dd/yyyy) : 08/11/2015

Other special considerations for handling : Provide adequate information, instruction and training for operators.

<p>Prepared for: FPPF Chemical Company, Inc. 117 West Tupper Street Buffalo, NY, USA 14201 Telephone: 1-800-735-3773 Please direct all enquiries to FPPF Chemical Company</p>	
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